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used per target analyte molecule; a "capture" or "anchor" binding ligand (also referred to herein as a "capture probe", particularly in reference to a nucleic acid binding ligand) that is attached to the detection electrode as described herein, and a soluble binding ligand, that binds independently to the target analyte, and either directly or indirectly comprises at least one ETM.

### IN THE CLAIMS

Please amend claims 36, 45, and 52 to read as follows:

36 (Amended) A microfluidic device for the detection of a target analyte in a fluid sample comprising:

- a) a solid support member;
- b) a sample handling module including a sample handling well formed in said support member to receive and store said sample;
- c) a sample inlet port to said microfluidic device;
- d) a first microchannel formed in said support member and fluid coupled to and extending between said sample handling well and said sample inlet port;
- e) a detection well formed in said support member and a detection electrode positioned in said detection well, said detection electrode being provided with a self-assembled monolayer; and a binding ligand; and,
- f) a second microchannel formed in said support member and extending between said sample handling well and said detection well for the flow of said fluid sample there between.

45. (Amended) A device according to claim 36, and a reaction module formed in said support member, wherein an additional microchannel connects the reaction module to said sample handling well and a further microchannel connects the reaction well to said detection module.

52. (Amended) A device according to claim 36, further comprising a valve.

Please cancel claims 40-44, 48, and 51 without prejudice or disclaimer.

### REMARKS

This Amendment and Response is submitted in response to the Office Action mailed 31 May 2002. Withdrawal of the rejection and reconsideration with an eye toward allowance is respectfully requested. A marked-up version of paragraphs and claims amended as above is attached herein,